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PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

FOR FURTHER ACTION  
See paragraph 2 below

International application No.  
PCT/GB2005/000468

International filing date (day/month/year)  
11.02.2005

Priority date (day/month/year)  
17.02.2004

International Patent Classification (IPC) or both national classification and IPC  
A47J31/06, A47J31/40

Applicant  
KRAFT FOODS R&D, INC.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. **type of material:**  
 a sequence listing  
 table(s) related to the sequence listing
  - b. **format of material:**  
 in written format  
 in computer readable form
  - c. **time of filing/furnishing:**  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. **Additional comments:**

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-56
	No: Claims	
Inventive step (IS)	Yes: Claims	1-56
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-56
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability**

**1 DOCUMENTS CITED**

Reference is made to the following documents:

**D1:** US 2 243 895 A (BROWN WILLIAM F) 3 June 1941 (1941-06-03)

**D2:** US 5 762 987 A (PLEISCH JEAN-PIERRE ET AL) 9 June 1998 (1998-06-09)

**2 INDEPENDENT CLAIMS 1, 41, 56**

2.1 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1, and shows (see fig.7 and 8):

An insert (container) suitable for use in a beverage preparation machine of a type comprising a brew head suitable for receiving a rigid or semi-rigid cartridge (fig.1-6), the brew head comprising an inlet (nozzle 49) for supplying water to the brew head and a downwardly directed outlet (discharge spout 51) for outflow of beverage produced by the machine, and a closure mechanism (fig.5 and 6; page 2 col.1 lines 23-38) moveable between open and closed configurations, the insert comprising a receptacle (68) and sealing means (flange according to page 3, col.1, lines 1-9), the receptacle having an opening (open central portion according to page 3, col.1, lines 1-9) through which, in use, a quantity of beverage ingredients may be loaded into the receptacle, a lower portion of the insert comprising an inlet and an outlet (fig.10) wherein, on insertion of the insert into the brew head of the beverage preparation machine and movement of the closure mechanism into the closed position the sealing means is contactable with, and sealable against, the brew head to thereby close the opening of the receptacle to define a brewing volume containing the quantity of beverage ingredients, and on inserting the insert into the brew head the inlet and outlet are arranged to communicate respectively with the inlet and outlet of the brew head of the beverage preparation machine when the insert is inserted into the machine such that, in use, water from the inlet of the brew head passes through the inlet of the insert into the brewing volume and such that beverage produced from the water and the quantity of beverage ingredients passes downwardly through the outlet of the insert to flow out of the outlet of the brew head (fig.5 and 6).

The subject-matter of claim 1 therefore differs from this known insert in that the inlet to the insert, which communicates with the inlet of the brew head of the beverage preparation machine, is upwardly oriented, and thus in that, in use, water flows upwardly into this insert through said inlet. The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

These features appear to solve the problem of reducing the complexity, and thus improving compactness, robustness and reliability of the upper brew head.

Upwardly directed brew head inlets are known from **D2** (see fig.10). However, these features have only been disclosed for use with flexible disposable sachets requiring piercing of the inlet and tearing of the outlet. The constructional features of the disclosed arrangement are not suitable for use with rigid or semi-rigid cartridges as claimed in claim 1 and shown in **D1**. The skilled person would therefore require the exercise of inventive skill (Article 33(3) PCT) to arrive at an insert according to claim 1.

- 2.2 The same arguments apply, mutatis mutandis, to independent claim 41, whose subject-matter is also inventive.
- 2.3 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 56, and discloses (fig.5-8):

A method of dispensing a beverage using a beverage preparation machine comprising a brew head suitable for receiving a rigid or semi-rigid cartridge (page 1, col.1, lines 1-46), the brew head comprising an inlet (nozzle 49) for supplying water to the brew head and a downwardly directed outlet (discharge spout 51) for outflow of beverage produced by the machine, the method (page 2, col.1, line 59 to page 2, col.2, line 33) comprising the steps of: opening a closure mechanism of the beverage preparation machine (lowering the clamp bars 53); inserting an insert into the brew head (carry a fresh cartridge over the clamp bars), closing the closure mechanism to squeeze the insert with sufficient force such that the sealing means of the insert seals against the brew head to close the opening of the receptacle (rocking cams 56 upwardly to seal the cartridge in liquid-tight relation to the delivery nozzle 49); operating the beverage preparation machine to pass water from the inlet of the brew head through

the inlet of the insert into the brew volume of the insert (opening valve, as in fig.3); dispensing a beverage formed in the brew volume from the water and the beverage ingredients downwardly through the outlet of the insert and the outlet of the brew head (into the cup placed below spout 51).

The subject-matter of claim 56 therefore differs from this known insert in that the inlet of the brew head, which communicates with the inlet of the insert, is upwardly oriented, and thus in that, in use, water flows upwardly into this insert through said inlet. The subject-matter of claim 56 is therefore new (Article 33(2) PCT).

These features appear to solve the problem of reducing the complexity, and thus improving compactness, robustness and reliability of the upper brew head.

It is known from **D2** (see fig.10) to deliver the water upwardly from the brew head into an insert. However, this step has only been disclosed for use with flexible disposable sachets requiring piercing of the inlet and tearing of the outlet. The constructional features of the disclosed arrangement are not suitable for use with rigid or semi-rigid cartridges such as claimed in claim 56 and shown in **D1**. The skilled person would therefore require the exercise of inventive skill (Article 33(3) PCT) to arrive at a method according to claim 56.

### **3 DEPENDENT CLAIMS 2-40, 42-55**

Claims 2-40 and 42-55 are dependent, respectively, on claims 1 and 41 and as such also meet the requirements of the PCT with respect to novelty and inventive step.